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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,218	03/10/2005	Hans-Dieter Hille	13619-004US1	5136

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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,218

Applicant(s)

HILLE ET AL.

Examiner

Benjamin J. Gillespie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/10/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The disclosure is objected to because of the following informalities: Page 8 line 9 and claim 12, "trimellithic anhydride" is spelled incorrectly. Correct spelling is trimellitic anhydride. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "obtainable" renders the claim indefinite since it is not possible to determine with certainty when such a claim is infringed, i.e. exactly when a product is "able" to be made by the claimed method and when it is not.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: derelict

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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1. Claims 1-3, 5-9, 11-12 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Seitz et al. ('985). Patentee discloses a water-thinnable polyurethane comprising the reaction product of a NCO compound and alkanolamine to form an intermediate which is then reacted with cyclic carboxylic anhydride, and a method for preparation (Column 5 lines 5-14, Method of preparation 1). More specifically, the NCO compounds specified by Seitz, initially exhibit two free NCO groups, no OH groups and are modified by at least one alkoxypoly(oxyalkylene) alcohol (Column 6 lines 42-45, column 7 lines 32-33). Seitz et al further teaches that the alkanolamine is either diethanolamine or diisopropanolamine, therefore having 2 to 6 carbons in the main chain, containing at least one secondary OH group, and reactive with NCO compounds via nitrogen atom, forming a urea bond (Column 7 lines 48-49).
2. With regards to claims 11 and 12, Seitz et al discloses that the cyclic carboxylic anhydride consists of phthalic anhydride, specifically trimellitic anhydride, wherein it reacts with the OH group from the alkanolamine (Column 5 lines 9-14). Finally patentee discloses that the invention preferably has acid numbers above 10 mg KOH/g (Column 8 lines 23-24).
3. Claims 1-2, 4-13, & 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Lamers et al Patent Application Publication US 2002/0114955 A1. The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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4. Patentee discloses an aqueous coating composition comprising the reaction product of polyisocyanate, compounds having at least one primary or secondary amino group with one hydroxyl group, and one anhydride, which is reactive toward hydroxyl groups of other reactants (Page 2 paragraphs [0023]-[0025], [0027]-[0028]). In particular, the polyisocyanate disclosed exhibit two free NCO groups, no OH groups, and form a prepolymer with components used to prepare the polyurethane material (Page 3 paragraphs [0066]-[0067], page 4 paragraph [0068], page 5 paragraph [0091]). Lamers et al further teaches that the compounds having one primary or secondary amino group with one hydroxyl group consist of diethanolamine and/or diisopropanolamine, therefore having 2 to 6 carbons in the main chain, containing at least one secondary OH group, and reactive with NCO compounds via nitrogen atom, forming a urea bond (Page 6 paragraph [0095]). Lamers et al further discloses that anhydride present consists of trimellitic anhydride, and that the resultant polyurethane has a molecular overlapping the weight range claimed of 500 to 10,000, more specifically 1,000 to 4,000 (Page 6 paragraph [0097]-[0098], page 7 paragraph [0108]).

5. Regarding claims 13, & 16-17, patentee teaches that aqueous polyurethane coating can be cured i.e. cross-linked by melamine resin, wherein the cure temperature range from 71°C to 177°C (Page 9 paragraph [0115], page 10 paragraph [0127], page 13 paragraph [0158]). The specified range overlaps claim 16 of less than 145°C but not 177°C, however Lamers et al teaches that if needed, higher temperatures can be used as necessary to active cross-linking mechanisms. Therefore examiner takes the position that cross-linking temperatures may exceed 180°C.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14, 15, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamers et al Patent Application Publication US 2002/0114955 A1 in view of Vandervoorde et al ('256).

As discussed before, Lamers et al teaches a cross-linked polyurethane aqueous coating. While Lamers et al discloses that the aqueous coating is cross-linked by a melamine resin, there is no teaching as to what particular melamine resin is used, specifically hexamethoxymethyl melamine.

7. Vandervoorde et al teaches a cross-linked polyurethane aqueous coating, and goes on to teach the cross-linking agent is hexamethoxymethyl melamine, which is highly alkylated and is without NH groups (Column 11 lines 64-67, column 12 lines 1, 3-6). Therefore it would have been obvious to one skilled in the art at the time of the invention to combine in Lamers et al individually old ingredients from Vandervoorde et al for their known additive function, i.e. it is obvious to add a known ingredient for its known function; in re Linder 173 USPQ 356; in re DIAL et al 140 USPQ 244.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B.Gillespie


RABON SERGENT
PRIMARY EXAMINER